ANALYZING INTERNET SALES AND USE TAX INFLUENCES ON AMAZON'S STRATEGIC SUPPLY CHAIN DECISIONS

Abstract

The strategic logistics decisions of a company are vulnerable to current legislation aimed at widespread collection of state sales taxes for e-commerce orders in their pursuit to provide excellent performance and create a competitive advantage for the company. Jeff Bezos, the founder of Amazon, based Amazon in Seattle partly to maximize the tax advantage (Elkind and Burke, 2013) with the focus on physical location as key to the success of an internet-based business. We examine two hypotheses to address the question that etailers (like Amazon) consider, when opening up distribution centers: whether they should operate under the assumption that they will bear the burden of sales and use tax compliance for internet sales and thus not account for this in supply chain decisions or whether they should continue to strategically modify their supply chains to minimize the tax burden where possible.

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Introduction

As online shopping became a normal mode of commerce, traditional brick-and-mortar stores found themselves at a competitive disadvantage with major e-tailers (e.g. Amazon.com) that operated almost exclusively online. This competitive disadvantage stemmed not only from the additional costs of maintaining a physical presence, but also from issues of taxation, particularly collection and remittance of sales and, in some instances, use taxes on goods purchased on the internet by consumers. Recognition of this problem by state legislatures and state tax authorities prompted a surge of interest in finding ways to capture this ever-growing, yet elusive revenue stream.

In 2008, the New York legislature initiated what has become a state legislature and special interest tug-of-war over online sales tax revenues. New York became one of the first states to enact a tax law specifically designed to capture this lost revenue on internet purchases by mandating collection of sales taxes by the e-tailer, namely targeting Amazon.com.[1] The rules set forth by the legislature in New York's new internet sales tax law, later referred to as the "Amazon Tax", caused a great deal of controversy. Balancing U.S. Constitutional and other federal legal obligations with online sales tax collection or use tax reporting efforts proved tricky for state lawmakers. The chances for tremendous revenue gains appeared to be slipping away until the arrival of a ruling by the New York Court of Appeals upholding the law and a subsequent U.S. Supreme Court's denial to review that holding. Thus, 'Amazon Tax' laws proliferated throughout the country, taking on slight variations for each state. Unwilling to yield, Amazon fought back through strategic use of market power and their supply chain distribution systems. Analysis of Amazon's supply chain data shows Amazon's tax-advantaged supply chain strategy proved very effective for Amazon in minimizing the tax impact of the Amazon tax laws.

While several commentators discussed the constitutional issues surrounding the various forms of the 'Amazon Tax' in relation to the online tax debate,[2] this article focuses on both quantitative and qualitative analysis of Amazon's nimble and strategic responses to variations on the 'Amazon Tax' implemented in numerous states and the overall movement towards legislatively mandated internet state sales tax collections or use tax reporting culminating with the *Wayfair* decision of June 2018.[3]. By linking analysis of Amazon's strategic supply and distribution chain decisions to law and policy implementation for internet sales and use taxation, it is shown that Amazon's strategic tax game ultimately made them an overall victor in the online tax war in exchange for some delivery efficiency. However, other online merchants, including Amazon's affiliates, may have been Amazon's fodder to achieve their supply chain victory. Now orphaned

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[1] N.Y. State Tax Law § 1101(b)(8)(vi); *See Overstock.com, Inc. v. New York State Dep't of Taxation & Fin.*, 20 N.Y. 3d 586, 590, 987 N.E.2d 621, 622 (2013).

[2] *See* Sherry Tehrani, *Welcome to the Amazon: Leading Online Retail From Local Tax Avoidance Into Your Backyard*, 67 TAX LAW. 875 (2014); *see also* Adam B. Thimmesch, *The Tax Hangover: Trailing Nexus*, 33 VA. TAX REV. 497 (2014); *see also* Hayes R. Holderness, *Taking Tax Due Process Seriously: The Give and Take of State Taxation*, 20 FLA. TAX REV. 371 (2017).

[3] *See* WILLIAM HOFFMAN et. al., SOUTH-WESTERN FEDERAL TAXATION 2017: COMPREHENSIVE, PROFESSIONAL EDITION 1-9 (40TH ed. 2016).

by their most powerful ally, merchants in several battleground states must decide whether to surrender via participation in an online tax amnesty or face potentially costly consequences of continuing to fight against an increasingly organized force of state tax agencies and the recent *Wayfair* decision supporting state tax authority efforts.[4]

I. Testing Hypotheses for Amazon's United States Distribution Center Location Strategy

The strategic logistics decisions of e-tailers, such as Amazon.com, Inc., in their pursuit to provide excellent performance and create a competitive advantage for the company, are vulnerable to legislation aimed at mandatory collection and/or reporting of state sales and use taxes for e-commerce orders. Jeff Bezos, the founder of Amazon, based the company in Seattle partly to maximize the tax advantage.[5] More specifically, and to highlight Bezos' strategic thinking, Bezos stated "physical location is very important for the success of a virtual business."[6] In both a domestic and international business operations context, tax legislation and tax policies can play a significant role in a business' strategic decision-making. The purpose of this article is to empirically evaluate the relationship between internet sales and use tax legislation and the strategic supply chain decisions of one of the largest e-tailers, Amazon.com, Inc. to see if the data shows inefficient alterations in Amazon.com, Inc.'s supply chain system aligning with the passage of internet sales and use tax legislation targeting aspects of Amazon's business operations. The strategic locational decisions of Amazon's distribution centers are vital to Amazon's profitability, affected by their ability to capture the market and offer high service levels (as of 2018 Amazon offers same-day delivery to over 8,000 cities and towns for prime members[7]), and by the associated costs of providing such services (the amortized investments in new distribution centers ("DCs"), local fulfillment costs, taxes, and transportation costs).[8]

We examine two hypotheses to address strategic decisions that etailers, like Amazon.com, Inc., consider when opening up distribution centers in light of the changing internet sales and use tax law landscape: 1) whether to operate under the assumption that collecting and/or reporting online sales and use tax is inevitable in spite of conflicting nexus considerations and thus to not consider tax implications when deciding where to locate DC's and adopt the most efficient supply chain design characterized by lowest lead times and transit costs or 2) whether to strategically position their supply chain in a tax advantageous way at the potential expense of logistical

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[4] This includes the District of Columbia and 23 States: Alabama, Arkansas, Colorado, Connecticut, Florida, Idaho, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, Nebraska, New Jersey, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Utah, Vermont, and Wisconsin. Multistate Tax Commission, *Online Marketplace Seller Voluntary Disclosure Initiative*, Aug. 17, 2017 *available at* http://www.mtc.gov/getattachment/Nexus-Program/Online-Marketplace-Seller-Initiative/Online-Marketplace-Seller-Voluntary-Disclosure-Program-rev12.pdf.aspx (hereinafter "Tax Amnesty").

[5] Peter Elkind and Doris Burke, *Amazon's (not so secret) War on Taxes,* FORTUNE (May 23, 2013), http://fortune.com/2013/05/23/amazons-not-so-secret-war-on-taxes/.

[6] Michael Mazerov, *Proposed "Business Activity Tax Nexus" Legislation Would Seriously Undermine State Taxes on Corporate Profits And Harm the Economy*, CENTER ON BUDGET AND POLICY PRIORITIES, Feb. 26, 2014, at 13 http://www.cbpp.org/files/6-24-08sfp.pdf.

[7] Amazon.com, Inc., August 14, 2018, *https://www.amazon.com/Prime-FREE-Same-Day-Delivery/b?ie=UTF8&node=8729023011*

[8] *See generally* SUNIL CHOPRA AND PETER MEINDL, SUPPLY CHAIN MANAGEMENT: STRATEGY, PLANNING, OPERATION (2001).

efficiency by cutting internet sales and use tax 'sweetheart' deals and/or strategically fighting such legislation in major supply chain hubs. These questions are particularly important due to the aforementioned profitability and distribution infrastructure investment decisions. More specifically and thoroughly, the approach of each hypothesis is expanded and outlined as:

> Hypothesis (1): Amazon's strategic location decisions for expanding physical operations into more States did not alter to deter the tax burden costs and Amazon's strategic location decisions focus on enabling faster service, including same-day delivery, of goods while supporting convenience and a diverse selection to maintain a critical part of Amazon's appeal. Distribution center decisions, specifically the number of distribution centers and their location in the supply chain network, affect the competitive distribution center costs and optimum customer response.

For example, in 2003 many Amazon products purchased by Miami, FL consumers come from a warehouse 1000 miles away in Memphis, TN, making the logistics difficult for "next-day" or "two-day" deliveries. Amazon expanded into states that legislated mandatory collection of internet sales tax and/or reporting for use tax purposes, such as California in 2012, finding that sales still increased even though the total cost (product price plus sales tax) increased for the consumer. The strategic value of select locations, providing lower shipping costs and shorter delivery times, in Amazon's overall supply chain may have proven too high to consider abandonment or significant supply chain alteration as a response to internet sales and use tax legislation. Tompkins International reported that the strategic DC location decision to service customers has evolved from just considering factors such as transportation costs and taxes, to the level of service that can be provided in an area. Amazon is investing to provide faster service to its customers by building DCs near major metropolitan areas. This hypothesis aligns with the public statements made by Jeff Bezos regarding Amazon's strategic supply chain focus, which aligns with our qualitative and quantitative data assessment used to verify actual supply chain efficiency outcomes with Amazon's stated strategy.

> Hypothesis (2): Amazon's strategic location decisions for expanding physical operations into more States altered to deter the tax burden costs, at the expense of supply chain efficiency, and in contravention to the public statements made by Jeff Bezos about primary focus on delivery efficiency.

Not incurring sales and use tax obligations and competing on low prices provides Amazon with a 10% advantage where profit margins are already thin.[9] As States pass legislation requiring Amazon to collect sales tax or prepare use tax reports, strategic supply chain decisions may skew towards inefficient distribution systems when side deals on the state and local online tax issues cannot be arranged. As of August 2017, items sold by Amazon.com, Inc., or its subsidiaries, and shipped to destinations in thirty-eight States are subject to tax.[10] To alleviate this burden, Amazon

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[9] Robert W. Wood, *Amazon No Longer Tax-Free: 10 Surprising Facts As Giant Loses Ground*, FORBES (Aug. 22, 2013), http://www.forbes.com/sites/robertwood/2013/08/22/amazon-no-longer-tax-free-10-surprising-facts-as-giant-loses-ground/.

[10] Amazon.com, Inc., About Sales Tax, AMAZON.COM (January 5, 2016),

made agreements with select States that require collection by Amazon of e-commerce sales tax or require use tax reporting by the etailer, to build warehouses in exchange for delayed implementation of compliance obligations (in New Jersey, for instance, Amazon promised to build two distribution centers, hiring more than 1,500 full-time employees and thousands of temporary and construction workers in the State, in exchange for not collecting sales tax until July 2013).[11] Aside from distribution centers, other investments by Amazon, such as customer service centers, were included in some deals with States; however, our data analysis focuses specifically on the deals involving new distribution center locations emerging from the deals between Amazon and the respective States.

To examine the hypotheses, we surveyed the landscape of the internet sales tax legislation that will impact Amazon's strategic decision-making process. Then, by collecting logistical data (i.e. the locations of Amazon's distribution centers that are opened up over time, closed over time, and the states that have enacted sales tax legislation) we compare these strategic location choices to the optimal choice that would enable optimal (fastest) speed of delivery of products to consumers to quantify if the actual impact of Amazon's strategic locational choices are based on speed of delivery or cost minimization (deter the tax burden).

As our data indicates, location of Amazon's distribution centers plays an important role in the on-going state and local tax litigation for Amazon's online marketing affiliates (called "Amazon Associates")[12] and third-party sellers who utilize Amazon's extensive distribution network through the "Fulfilled by Amazon" shipping option ("Amazon's FBA") for their businesses.[13] As will be discussed below, Amazon used these third-party sellers and affiliates as a tool to extract tax concessions from several State tax authorities. Upon reaching a competitive tax advantage through their supply chain strategy, Amazon stopped opposing many of the State tax authorities' efforts to more expansively define nexus (excluding the new "online marketplace" laws of South Carolina and Minnesota),[14] effectively abandoning the fight on behalf of the very same third-party sellers they used to gain their tax-advantaged supply chain. Third-party sellers that previously utilized Amazon's FBA services have been offered internet sales tax amnesties; however, one of the larger amnesties, from 2017, is based on a commitment by online sellers to future compliance with each of the 24 participating States' separate interpretations of what

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http://www.amazon.com/gp/help/customer/display.html?nodeId=468512 (Alaska is a special case whereby only items sold as Amazon Warehouse Deals and shipped to Alaska are taxed locally).

[11] *Id*.

[12] Amazon.com, Associate Program Policies, https://affiliate-program.amazon.com/help/operating/policies#Associates Program Fee Statement.

[13] Amazon.com, Amazon Services, Fulfillment by Amazon, How it Works, https://services.amazon.com/fulfillment-by-amazon/how-it-works.htm/ref=asus_fba_snav_how.

[14] Amazon stopped fighting the nexus legal battles in situations where Amazon is not being held responsible for collecting sales tax on behalf of the third-party sellers via online marketplace laws that recently cropped in South Carolina and Minnesota; they will still fight if a State tax authority claims they are responsible for collecting sales taxes on behalf of their third party sellers; *see* Eugene Kim, *Amazon Faces a Tax Fight in South Carolina That Could Change How Online Sellers Do Business*, CNBC NEWS (Aug. 15, 2017), https://www.cnbc.com/2017/08/15/amazon-faces-a-tax-fight-in-south-carolina-that-could-change-how-online-sellers-do-business.html.

constitutes nexus for sales and use tax collection and reporting.[15] Contemporaneously, tax authorities in South Carolina are suing Amazon, claiming that Amazon ultimately bears the responsibility for collecting online sales taxes on behalf of its third party sellers because of South Carolina's new "online marketplace" law.[16] In order to fully comprehend how Amazon's supply chain decisions led to the tax amnesty, the evolving legal history of the state and local online tax jurisprudence is discussed next.

II. Internet Sales and Use Tax Law

The substantive forms of the Amazon tax evolved quite a lot over the years due to variations in state legislation. One of the interesting issues associated with the launch and subsequent litigation over these variants of the Amazon tax is the inclusion of marketers in addition to online sellers through the emergence of click-thru nexus arguments by state tax authorities.[17] The reasoning for this can be seen in the historical emergence and re-shaping of nexus for state and local taxation, but this inclusion of marketers also presents a point of significant contention in the on-going legal debate. As of late 2017, pre-*Wayfair*, Amazon collected sales tax in the majority of states for items shipped and sold by Amazon.com or subsidiaries. However, Amazon refused to bend to the broadest of the new nexus "online marketplace" laws, as seen by the lawsuit with the South Carolina tax authorities in June 2017. A year later, the *Wayfair* decision addressed some of the big questions, but not all of the concerns associated with internet taxation.

A. Background

Prior to 2008 (when the New York "Amazon" internet sales tax became law), consumers across the United States were able to purchase goods without sales tax being collected at time of purchase from online merchants so long as those online merchants lacked a physical presence in the state where the consumer lived.[18] This concept of physical presence or 'nexus' as later applied in future cases involving attempts to force sales tax collection by out-of-state retailers, evolved from a late 1960s United States Supreme Court case involving attempts by various States to tax purchases from mail-order catalogs.[19] The key issues in this line of cases often involved violations of the Commerce Clause, and to a certain extent, the Due Process Clause of the United States Constitution.

Amazon's tax problems arising from these various internet sales and use tax laws impacted their supply chain and, consequently, their affiliate program decisions.[20] Since this article empirically explores Amazon's distribution system in relation to the sales and use tax laws, the relationship of Amazon's marketing affiliate/associate programs to those very same laws is embedded in the analysis. This is due to the interwoven nature of Amazon's supply chain decisions

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[15] Tax Amnesty, *supra* note 4.
[16] Tony Owusu, *Amazon's Tax Fight in South Carolina Could Set a Huge Precedent*, THE STREET (Aug. 15, 2017), https://www.thestreet.com/story/14272621/1/amazon-s-tax-fight-in-south-carolina-could-set-precedent-for-online-retailers.html.
[17] *See infra* section II. C.
[18] N.Y. State Tax Law § 1101(b)(8)(vi).
[19] *National Bellas Hess v. Department of Revenue*, 386 U.S. 753 (1967).
[20] *See* Associates Program Policies, *supra* note 18.

and States' internet sales and use tax laws that either directly or indirectly targeted those marketing affiliate/associate programs.

Following the passage of the New York Amazon law, the passage of additional variants of 'New York Style Amazon Laws' in multiple states prompted decisional conflict among the various courts charged with hearing the matters. However, some of these courts chose to approach the clones of New York's Amazon law from a different angle to either validate it (such as occurred in Colorado) or to invalidate it (such as occurred in Illinois). This left it up to Amazon.com, Inc. and other such companies to attempt to negotiate internet sales and use incentive tax deals with states on a state-by-state bilateral basis in an effort to maintain respective competitive advantages (i.e. Amazon's supply chain efficiency) while fighting contentious battles in the courts.

B. Commerce Clause, Due Process Clause, and First Amendment Issues

National Bellas Hess, Inc. v. Department of Revenue of Illinois ("*Bellas*") is the closest legal relative to where courts and policymakers find themselves today in attempting to reconcile Constitutional obligations with the need to collect tax revenue.[21] The *Bellas* case involved a mail order company with its principal place of business in Kansas City, Missouri that was required by the Illinois Department of Revenue through an Illinois Supreme Court order to collect and pay use taxes to Illinois despite Bellas lacking outlets, warehouses or sales representatives in Illinois.[22] Bellas' contacts with the State of Illinois were limited to the postal system or common carrier for delivery of goods purchased by customers from its mail order catalog.[23] To a certain extent, Bellas effectively was the e-tailer equivalent for its time period. The government of Illinois asserted that this solicitation of customers who lived in Illinois via mail order catalog by Bellas was the equivalent of maintaining a place of business in the state under the 1965 Illinois Revenue Statute Chapter 120 Section 439.2.[24] The United States Supreme Court sided with Bellas' claim that the Illinois tax collection obligation created an unconstitutional burden on interstate commerce, specifically stating:

> Indeed, it is difficult to conceive of commercial transactions more exclusively interstate in character than the mail order transactions here involved. And if the power of Illinois to impose use tax burdens upon National [Bellas] were upheld, the resulting impediments upon the free conduct of its interstate business would be neither imaginary nor remote.[25]

The next major evolution in the *Bellas* lineage of cases emerged from the decision of a 1977 Supreme Court case, *Complete Auto Transit v. Brady* ("*Auto Transit*"), involving sales tax on the delivery services of General Motors vehicles manufactured outside of the state charging the tax.[26] The *Auto Transit* case clarified the validity of a non-discriminatory state tax imposed on a business with a substantial nexus to the tax imposing state.[27]

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[21] *Id*.
[22] *Id*. at 754.
[23] *Id*. at 754-55.
[24] *Id*. at 755.
[25] *Id*. at 759.
[26] *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274 (1977).
[27] *Id*. at 278-80.

Twenty-five years following the *Bellas* decision, in *Quill Corp. V. Heitkamp* ("*Quill*"), the Supreme Court found itself facing another mail order catalog case. [28] *Quill* involved the imposition of a use tax collection obligation on an out-of-state company, Quill Corporation, for goods it sold that would be used within the state of North Dakota. The Supreme Court in *Quill* made an important distinction and clarification between the 'minimum contacts' requirements of the Due Process Clause and the 'substantial nexus' requirement of the Commerce Clause. More specifically, the Supreme Court stated that the Due Process requirement was to provide "notice or fair warning", while the Commerce Clause's nexus requirement emerged from "concerns about the effects of state regulation on the national economy."[29] Additionally, it was made clear that although a company, such as the Quill Corporation, may have minimum contacts to meet Due Process Clause requirements it could still lack substantial nexus and thus disallow for the validity of the use tax measures in question.[30]

This distinction and differentiation by the court between Due Process Clause requirements and Commerce Clause requirements refuted the State of North Dakota's claim that the nexus requirements imposed by both clauses were the same.[31] In reaching its decision, the Supreme Court highlighted the four-factor test developed in the *Auto Transit* case: "we will sustain a tax against a Commerce Clause challenge so long as the "tax 1. is applied to an activity with a substantial nexus with the taxing State, 2. is fairly apportioned, 3. does not discriminate against interstate commerce, and 4. is fairly related to the services provided by the State."[32] Collectively with the established earlier jurisprudence stemming from the *Bellas* case lineage, the Supreme Court in *Quill* presumptively recognized a bright-line physical-presence requirement to create substantial nexus for businesses similar to mail-order catalog companies with operations like Quill Corporation.

A subsequent attack on this presumptive bright-line test came from the State of New York, when it passed its 'Amazon law' which created its own presumption that out-of-state Internet retailers (e-tailers) are in-state vendors even without a physical presence in the state. New York's 'Amazon law' went through extensive litigation brought by Amazon.com, Inc. and ultimately ended with a petition for a Writ of Certiorari filed on August 23, 2013, that was denied on December 2, 2013.[33] The questions presented in the filed Writ of Certiorari go back to the original concerns over tax collection obligations imposed in violation of the Commerce Clause when there is no physical presence in New York and a new take on Due Process Clause violation – New York's adoption of an effectively irrefutable presumption that the requirements for taxation under the Commerce Clause are satisfied.[34]

Other Constitutional problems for Amazon tax collection efforts emerged in the form of purchase information demands for tax reporting. In December of 2009, the North Carolina Department of Revenue requested from Amazon "'all information for all sales to customers with a North Carolina shipping address by month in an electronic format for all dates between August

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[28] *Quill Corp. v. Heitkamp*, 504 U.S. 298 (1992).
[29] *Id*. at 309-10.
[30] *Id*.
[31] *Id*. at 311.
[32] *Auto Transit*, 430 U.S. at 279.
[33] *Amazon.com LLC v. N.Y. Dep't of Taxation and Fin.*, *cert. denied*, 134 S.Ct. 682 (2013).
[34] *Amazon.com LLC v. N.Y. Dep't of Taxation and Fin.*, 987 N.E.2d 621 (N.Y. App. Div. 2013), *petition for cert. filed*, (U.S. Aug. 23, 2013) (No. 13-259).

1, 2003, and February 28, 2010."[35] Amazon.com, Inc. and the American Civil Liberties Union objected to supplying detailed customer information along with their purchases and filed suit on First Amendment grounds.[36] District Court Judge Marsha Pechman agreed with Amazon and the ACLU stating in her opinion granting summary judgment- "The First Amendment protects a buyer from having the expressive content of her purchase of books, music, and audiovisual materials disclosed to the government. Citizens are entitled to receive information and ideas through books, films, and other expressive materials anonymously."[37] In June 2017, Connecticut took a similar approach in efforts to force collection of sales tax on non-physically present online sellers via sending demand letters with reporting requirements that potentially violate consumer privacy and 1st Amendment rights.[38]

Despite the invitation towards litigation surrounding the New York 'Amazon tax', many States hoping for additional sales tax revenues adopted, with mixed success, duplicates or slight variations on the 'Amazon tax'; many States found themselves facing litigation and/or small e-business lobby political pushback as a result. However, the most significant strategic outcome of the continued push towards internet sales taxation resulted in alterations of Amazon's investment decisions for their supply chain operations in several States. By targeting Amazon through sales and use tax laws, many States were faced with a choice to either litigate or broker a deal to avoid losing Amazon's current or proposed engagements with the State.

C. Amazon Tax Clone Laws, Affiliate Nexus, and Associated Jurisprudence

Attempts by other State governments to duplicate New York's 'Amazon tax' met with mixed success. Eight states in particular have witnessed their initial (and occasionally successive) legislative attempts either fail outright (Idaho, Louisiana, Mississippi and Nebraska), get vetoed by their governor (Hawaii and Ohio) or face major court challenges (Colorado and Illinois).[39] In the two states where local courts addressed a variation on the Amazon tax law, Colorado and Illinois, there emerged two divergent opinions on the validity of the law, with one court upholding it and the other invalidating it.[40] In late 2013, the Illinois Supreme Court, in a 6-to-1 decision in *Performance Mktg. Ass'n, Inc. v. Hamer* ("*Hamer*"), found that the Internet Tax Freedom Act (the "ITFA") preempted Illinois' state Amazon tax law.[41]

The ITFA emerged in 1998 to address concerns regarding restriction on internet access through the imposition of potential internet access taxes.[42] Initially, the law imposed a three year moratorium on the imposition of any internet access taxes.[43] Five internet access tax moratorium

[35] *Amazon.com LLC v. Kenneth R. Lay*, 758 F. Supp.2d 1154, 1159 (W.D. Wash. 2010).
[36] *Id.*
[37] *Id*. at 1167.
[38] Stephen Kranz, Diann Smith, Eric Carstens, *Sellers Beware Connecticuit's Demands for Customer Data*, LAW 360 (July 27, 2017), https://www.law360.com/articles/948554/sellers-beware-connecticut-s-demands-for-customer-data.
[39] *See infra* notes 35 and 54.
[40] *Id*.
[41] *Performance Mktg. Ass'n, Inc. v. Hamer*, 998 N.E.2d 54 (Ill. Oct. 18, 2013).
[42] Title XI of P.L. 105-277, the Omnibus Appropriations Act of 1998.
[43] *Id*.

extensions later, the ITFA discussion continues.[44] The most recent extension, signed into law as part of the Consolidated Appropriations Act of 2016 by President Obama, extended the ITFA through October 16, 2016.[45] In December of 2015, Senator Dick Durbin (Democrat – Illinois) spoke openly in opposition of adopting a permanent ITFA until the House of Representatives votes on one of the many variations of the Marketplace Fairness Act.[46] Senator Durbin's statements about taking some action on the Marketplace Fairness Act prior to consideration of making permanent the ITFA undoubtedly originate from the internet sales and use tax issues addressed by the Illinois Supreme Court in Durbin's home State. In spite of Senator Dick Durbin's protests, the ITFA was made permanent (referred to as "PITFA") in February 2016 as part of the Trade Facilitation and Trade Enforcement Act of 2015.[47]

Although internet access taxes (as opposed to internet sales and use taxes) formed the focus behind initial creation of the ITFA, the basis for the Illinois Supreme Court decision in *Hamer* rested on a clause in the ITFA generally prohibiting States from imposing discriminatory taxes on electronic commerce.[48] Specifically, the Illinois Supreme Court considered the disparity in tax treatment between web retailers who sell through links on IL websites (establishing "click-through-nexus"[49]) and web retailers who simply advertise through print or broadcast to sell.[50] The Illinois Amazon tax law obligated retailers to collect sales tax if they established click-through-nexus (the first scenario mentioned) while allowing the print/broadcast web retailers to escape the sales tax collection obligation.[51] Thus, the Illinois Supreme Court stated "by singling out retailers with Internet performance marketing arrangements **for use tax collection** [emphasis added], the Act imposes discriminatory taxes within the meaning of the ITFA."[52] Unfortunately, for e-tailers hit by the 2011 Illinois Amazon tax law, the decision arrived a bit too late as two-thirds of Amazon affiliate businesses either went out of business or left the state of Illinois (Performance Marketing Association, 2013).[53] After the Illinois Supreme Court's ruling on Illinois' version of an Amazon tax law, the Illinois legislature changed their now invalidated tax law and removed specific

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[44] The ITFA was extended first in 2001, then again in 2004, in 2007 and two more times in 2014; *see* H.R. 1552, 107th Cong. (2001) (enacted)[extending the ITFA's expiration date through Nov. 1, 2003); *see also* Internet Tax Nondiscrimination Act, Pub. L. No. 108-435, 118 Stat. 2615 (2004) [extending the ITFA's expiration date through Nov. 1, 2007]; *see also* H.R. 3678, 110th Cong. (2007) (enacted) [extending the ITFA's expiration date through October 2014]; *see also* H.R.J. Res. 124, 113th Cong. (2014) [extending the ITFA's expiration date through Dec. 11, 2014]; *see also* H.R. 83, 113th Cong. (2014) (enacted) [extending the ITFA's expiration date through September 2015]; *see also* H.R. 719, 114th Cong. (2015) (enacted)[extending ITFA's expiration through December 2015].
[45] *See* H.R. 2029, 114th Cong. (2015).
[46] John Eggerton, *Durbin Leads ITFA Pushback*, MULTICHANNEL NEWS (Dec. 15, 2015), http://www.multichannel.com/news/congress/durbin-leads-itfa-pushback/395978 (For an in-depth discussion on the Marketplace Fairness Act *see infra* Section C on pp. XX).
[47] *See infra* note 75 and Section D.
[48] *Hamer*, 998 N.E.2d at 59 ¶ 23, *supra* note 35.
[49] *Id*. at 59 ¶¶ 21-23.
[50] *Id*. at 59 ¶ 22.
[51] *Id*. at 59 ¶¶ 21-23.
[52] *Id*. at 59 ¶ 19.
[53] Brian Littleton, *Performance Marketing Association Wins Suit Challenging Validity of Illinois Affiliate Nexus Law: Supreme Court Upholds 2012 Circuit Court Decision*, PERFORMANCE MARKETING ASSOCIATION (Oct. 18, 2013), http://jobs.thepma.org/2013/10/18/press-release-illinois-supreme-court-upholds-pma-suit/.

references to the internet along with including coverage for print and broadcast to address the provisions of the earlier law impacted by the Illinois Supreme Court's ruling.[54]

In contrast, a few months prior to the *Hamer* case, the 10th Federal Circuit Court of Appeals lifted an injunction (imposed earlier in March 2012) prohibiting enforcement of Colorado's Amazon tax law in *Direct Marketing Ass'n v. Brohl* ("Brohl").[55] The 10th Circuit's reasoning behind the decision to lift the injunction involved the Federal Tax Injunction Act's prohibition on federal courts' right to suspend state tax laws.[56] The Tax Injunction Act (the "TIA") states "[t]he district courts shall not enjoin, suspend or restrain the assessment, levy or collection of any tax under State law where a plain, speedy and efficient remedy may be had in the courts of such State."[57] According to the 10th Circuit Court's interpretation of the TIA, state tax law issues should be solved in state courts first prior to a federal court suspending enforcement of such laws through an injunction.[58] It is significant to note that in reaching the decision, the 10th Circuit also dismissed the Commerce Clause claims of the case.[59] The United States Supreme Court agreed to hear the Direct Marketing Association's appeal on the question:

> Whether the TIA bars federal court jurisdiction over a suit brought by non-taxpayers to enjoin the informational notice and reporting requirements of a state law that neither imposes a tax, nor requires the collection of a tax, but serves only as a secondary aspect of state tax administration?[60]

On March 3rd, 2015, the United States Supreme Court unanimously reversed the 10th Circuit Court's decision stating that Direct Marketing Association's suit is not barred by the TIA.[61] The decision rested on interpretation of the terms "assessment", "levy", and "collection" within the context of the Federal Tax Code as not inclusive of "informational notices or private reports of information relevant to tax liability."[62] This decision may allow other affiliates to adopt the Direct Marketing Association's approach to prevent enforcement attempts by States of the mandatory use tax reporting components of Amazon-styled tax laws for internet transactions. However, the decision did not fully settle the matter. The Supreme Court remanded the case to the 10th Circuit for further proceedings on the merits of the claims now that the suit was no longer bared by the TIA.[63]

On remand to the 10th Circuit, the court adopted a very different approach in interpreting limitations imposed on internet sales-use taxation by the Supreme Court's decision in *Quill*.[64] The Direct Marketing Association argued that Colorado's Amazon tax variant requiring use tax notice and reporting "unconstitutionally discriminates against and unduly burdens interstate commerce";

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[54] Tim Landis, *State Goes After Unpaid Sales Tax*, THE STATE JOURNAL-REGISTER (Jan. 18th, 2015), http://www.sj-r.com/article/20150118/NEWS/150119498/0/SEARCH/?Start=1.
[55] *Direct Marketing Ass'n v. Brohl*, 735 F. 3d 904 (10th Cir. 2013), *petition for cert. filed* (U.S. Feb. 24, 2014) (No. 13-1032).
[56] *Id.*
[57] 28 U.S.C. § 1341.
[58] *See generally Brohl*, 735 F. 3d at 904.
[59] *Id*.
[60] *Direct Marketing Association v. Brohl*, 575 U. S. ____ (2015), *Question Presented*, http://www.supremecourt.gov/qp/13-01032qp.pdf.
[61] *Direct Marketing Ass'n v. Brohl*, 575 U. S. ____ (2015).
[62] *Brohl*, 575 U. S. ____ (2015) at 5-9 (slip opinion).
[63] *Brohl*, 135 S. Ct. at 1127, 575 U. S. ____ (2015) [slip opinion page 13].
[64] *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

this argument was very much in alignment with the *Quill* derived case law on internet sales-use tax issues.[65] Thus, the overall focus on remand centered on *Quill* and the Dormant Commerce Clause (whether Colorado's Amazon-styled tax law discriminates against or places an undue burden on interstate commerce in an area where Congress has remained silent).[66]

The 10th Circuit determined that *Quill* "applies narrowly to sales and use tax collection."[67] Specifically, the court placed emphasis on the concept of collecting taxes as opposed to an obligation of reporting that taxes may be owed. Thus, the court determined that the question of whether Colorado's law had a discriminatory effect on interstate commerce depended on the scope of *Quill*.[68] Although the Colorado law provided the option for out-of-state retailers to either collect and remit sales tax or engage in use tax notice reporting, the court found that this option alone does not render Colorado's law non-discriminatory.[69] Ultimately, however, the court determined that *Quill* only extends protection for out-of-state retailers without a physical presence in the state from an obligation to **collect** [emphasis added] sales tax.[70]

Since DMA could not provide sufficient evidence that the Colorado use tax notice and reporting requirements were more burdensome than what in-state retailers must comply with, the court determined the law was non-discriminatory.[71] Further, the court found the Colorado law did not create an undue burden because it "does not require out-of-state retailers to assess, levy, or collect use tax on behalf of Colorado."[72] This last component originated from the case's earlier history when the Tax Injunction Act played a significant role.[73] The Supreme Court made it quite clear in their ruling prior to remand, that the TIA is linked to tax acts involving assessment, levy, or collection, not tax notice and reporting obligations.[74]As the legal battles over internet sales and use tax continued, state governments adopted more interesting and aggressive approaches to assert nexus for state tax purposes over e-tailers.

One such example pertaining to a group of consolidated cases before the Ohio Supreme Court in late 2016, involved a very interesting interpretation of establishing nexus for e-tailers.[75] Rather than emphasizing a sales or use tax in the litigation , Ohio opted for a gross receipts tax (or "business privilege tax") to go after e-tailers without a physical presence such as Newegg.com and others. The case is particularly relevant to other internet sales and use tax cases due to the *Quill* physical presence bright-line test for substantial nexus; ultimately- whether *Quill* physical presence applies equally to a gross receipts tax functioning as a commercial-activity tax in as it does to more Amazon-style internet sales and use tax issues for e-tailers.

In terms of physical presence to satisfy *Quill* and whether *Quill* should apply to gross receipts taxes in the form of a commercial-activity tax, the Ohio Tax Commissioner creatively

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[65] *Direct Marketing Ass'n v. Brohl*, No. 12-1175 at 4 (10th Cir., Feb. 22, 2016).
[66] *Id*. at 11-12.
[67] *Id*. at 13.
[68] *Id.* at 28.
[69] *Id*. at 28-29.
[70] *Id*. at 29.
[71] *Id*. at 31.
[72] *Id*. at 34.
[73] *Supra* Brohl, note 56.
[74] *Id*. at 1131.
[75] *See Crutchfield Corp. v. Testa*, 151 Ohio St.3d 278 (Ohio 2016)*; see also Crutchfield Inc. v. Testa*, Case No. 15-0386 (Ohio filed Mar. 6, 2015); *Newegg Inc. v. Testa*, Case No. 15-0483 (Ohio filed Mar. 25, 2015); *Mason Cos. Inc. v. Testa*, Case No. 15-0794 (Ohio filed May 19, 2015).

argued that the use of software cookies by companies, specifically Crutchfield and Newegg.com, but applicable to companies like Amazon.com, Inc., constitutes sufficient physical presence in Ohio to establish nexus.[76] The basis for this argument originates from the treatment of software as tangible property under Ohio state law.[77] Such interesting and creative attempts at establishing nexus for purposes of internet sales and use tax demonstrate a growing effort by states to increase their enforcement and collection efforts. The Ohio Supreme Court ultimately did not address the creative cookies argument when it rendered a decision on the case.[78] However, the Ohio Supreme Court held that physical presence was not necessary and that the gross receipts tax in the form of a commercial activities tax satisfied substantial nexus because it supported a "legitimate interest of the state of Ohio" and was imposed "evenhandedly on the sales receipts of in-state and out-of-state sellers."[79] Thus, *Quill* physical presence requirements for out-of-state retailers did not apply to the Ohio commercial activity tax involving taxable gross receipts of out-of-state etailers, such as Newegg.

D. PITFA, MFA, and the RTPA – Legislative Efforts Relevance to Amazon's Strategic Distribution Location Decision-Making

Prior to the Supreme Court's TIA *Brohl* decision, the Supreme Court denied Amazon's writ of certiorari for New York's Amazon internet sales tax law (the progenitor of other States' Amazon tax law variations).[80] The ruling placed great reliance on Congress (as the Supreme Court both implicitly and explicitly made clear) to enact federal legislation that will comprehensively address internet sales and use taxation. This resulted in a very fractured jurisprudential landscape due to differing State supreme court decisions on Amazon-style internet sales and use tax laws and the U.S. Supreme Court's passing the buck to Congress set the stage for a drawn out political battle.[81]

In mid-June 2014, the "Permanent Internet Tax Freedom Act" ("PITFA") successfully moved out of the House Judiciary Committee to be considered by the House of Representatives.[82] In July of 2014, the House passed the PITFA and the bill moved to the Senate where it died prior to further consideration by the 113th Congress.[83] The PITFA bill was specifically designed to act as a "[p]ermanent moratorium on Internet access taxes and multiple and discriminatory taxes on electronic commerce."[84] Despite failing to become law in 2014, PITFA emerged once again in

[76] *Crutchfield Inc. v. Testa*, Case No. 15-0386 (Ohio filed Mar. 6, 2015), APPELLEE TAX COMMISSIONER'S MERIT BRIEF (Oct. 20, 2015) at 43-46, http://supremecourt.ohio.gov/pdf_viewer/pdf_viewer.aspx?pdf=779669.pdf.
[77] *Id*. at 43-44.
[78] *Crutchfield Inc., v. Testa,* Slip Opinion No. 2016-Ohio-7760 (Nov. 17, 2016) *available at* https://supremecourt.ohio.gov/rod/docs/pdf/0/2016/2016-ohio-7760.pdf.
[79] *Id*. at 23-24, ¶ ¶ 55-56.
[80] *Amazon.com LLC v. N.Y. Dep't of Taxation and Fin*., *cert. denied*, 134 S.Ct. 682 (2013).
[81] *Id*.
[82] Permanent Internet Tax Freedom Act of 2014, H.R. 3086, 113th Cong. §2 (2d Sess. 2014) [hereinafter "PITFA"].
[83] *Id*.
[84] *Id*. at §2.

early 2015 and, once again, failed to become law.[85] Finally, in February of 2016, PITFA became law as a part of the Trade Facilitation and Trade Enforcement Act of 2015.[86]

Although the primary purpose of the PITFA bill is based on preventing states from enacting taxes on internet access, the additional language covering "discriminatory taxes on electronic commerce" broadly encompasses all types of internet taxation.[87] This last component is specifically relevant to consideration of internet tax impact on supply chain models. For example, the Illinois Supreme Court in *Hamer* utilized this additional language to reach their conclusion that the ITFA preempted the state of Illinois' Amazon internet sales tax law.[88] Passage of PITFA without any additional language specifically related to the Marketplace Fairness Act, and consequently internet sales tax issues, could provide for additional arguments against attempts by states trying to enforce an Amazon tax style law.[89] A state supreme court already used the ITFA to preempt a state's internet sales tax.[90] This also possibly explains the previous apprehension of proponents of the Marketplace Fairness Act from considering PITFA unless the Marketplace Fairness Act was voted on by the House of Representatives first.[91]

Unlike PITFA, the Marketplace Fairness Act specifically addresses the internet sales tax issues. The version of the "Marketplace Fairness Act" (the "MFA") that passed the Senate in 2013 faced opposition due to perceived deficiencies in how it approaches internet sales and use tax collection.[92] One of several major concerns regarding the MFA involves the regulatory burden associated with granting the various States so much control over remote e-tailers (or "remote sellers" as the term is defined in the MFA).[93] Several modifications to the MFA aimed at addressing these concerns found their way into the version of the billed passed by the Senate.

Individuals and groups opposed to the MFA, including Texas Senator Ted Cruz, argue that for small businesses the consequences of the regulatory compliance burdens imposed by the MFA can and will undoubtedly jeopardize small business longevity.[94] Yet, for large e-tailers, such as Amazon, that have the internal company infrastructure to handle multiple state sales tax compliance issues, this would be more of a minor annoyance. Representative Steve Womack and other strong supporters of the MFA point to provisions added to the MFA to accommodate these

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[85] Permanent Internet Tax Freedom Act of 2015, H.R. 235, 114th Cong. (1st Sess. 2015); *see also* Internet Tax Freedom Forever Act of 2015, S. 431, 114th Cong. (1st Sess. 2015) [a related bill, referred to congressional committee on Feb. 10th, 2015, that would permanently extend the Internet Tax Freedom Act].
[86] Trade Facilitation and Trade Enforcement Act of 2015, P.L. 114-125 (02/24/2016) [hereinafter "TFTEA"].
[87] *PITFA*, *supra* note 56, at §2.
[88] Performance Mktg. Ass'n, Inc. v. Hamer, 998 N.E.2d 54 (Ill. Oct. 18, 2013).
[89] *See* TFTEA, *supra* note 78.
[90] *Hamer*, 998 N.E.2d at 59 ¶ 23, *supra* note 35.
[91] *See* Eggerton, *supra* note 40 (referring to Senator Dick Durbin of Illinois, a proponent of the Marketplace Fairness Act, specific statements to this effect in December of 2015).
[92] Marketplace Fairness Act of 2013, S. 743, 113th Cong. (1st Sess. 2013) [hereinafter "MFA 2013"].
[93] James R. Sutton, *Marketplace Fairness Act: The Fallacy of Simplification and the Private Reporting-Based Solution*, TAX ANALYSTS (April 23, 2014), http://www.taxanalysts.com/www/features.nsf/Features/347A2EF66D73C12485257CC2005EAAA5?OpenDocument.
[94] Peter Urban, *Ted Cruz Rallies Against Marketplace Fairness Act*, ARKANSAS NEWS (Nov. 18, 2014) http://arkansasnews.com/news/arkansas/ted-cruz-rallies-against-marketplace-fairness-act.

concerns. Specifically, the small seller exception and the software provision were added to the MFA in an attempt to address these concerns.[95]

Similar to the MFA, the Remote Transactions Parity Act of 2015 (the "RTPA") would permit states to require e-tailers acting as remote sellers to collect sales and use taxes for online sales sourced in each state.[96] The RTPA contains a three year phase-in for "small remote sellers" providing an exception for remote sellers with less than $10 million in annual gross receipts in year one and dropping down to an excess of $1 million in gross annual receipts by year three.[97] However, critics of the RTPA point to the irrelevancy of the RTPA small seller exceptions due to the language in the second component of the exceptions which effectively cancels out benefits of the exceptions for small remote sellers.[98] Specifically, the clause of concern states that, regardless of gross annual receipts, a state can require collection if the (small or otherwise) remote seller "utilizes an electronic marketplace for the purpose of making products or services available for sale to the public."[99] Effectively, the federal legislative battle lines over the internet sales and use tax debate morphed into bigger versus smaller e-tailer remote sellers.

Whether from being battle weary over the internet sales tax issue or from arranging ample 'sweetheart' internet sales and use tax exemptions, Amazon is now counted among the supporters of the Marketplace Fairness Act legislation.[100] Opponents to the MFA, state that when considering the impact on small sellers/e-tailers, the Marketplace Fairness Act turns out to be anti-competitive through the imposition of a heavy regulatory and compliance burden. For this reason, companies that are heavily involved with small businesses/micro businesses, such as EBay, oppose the Marketplace Fairness Act. To fully evaluate our hypotheses and assess the strategic reasoning behind Amazon's behavior in relation to the impact of internet sales and use tax law changes (and Amazon's 2013 switch in support for the MFA), we use logistics theory and distribution supply chain modeling for Amazon derived from key data points.

E. South Carolina's Online Marketplace Approach and the Multistate Tax Amnesty

In June 2017, the South Carolina Department of Revenue (the "SCDR") issued a demand to Amazon claiming that Amazon Services, LLC owes approximately $12.5 million due to

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[95] *See* MFA 2013, *supra* note 84, at §2(c)(providing that States can only require remote sellers with gross receipts exceeding one million dollars to collect sales and use taxes); *see also* MFA 2013, *supra* note 84, at §2(b)(2)(D)(specifying that the MFA will provide for free software that will calculate sales and use taxes for remote sellers).

[96] Remote Transactions Parity Act of 2015, H.R. 2775, 114th Cong. (2d Sess. 2015) [hereinafter *RTPA*].

[97] *Id*. at §2(c).

[98] John Greathouse, *Congress' Latest Online Tax Grab Will Decimate Small Businesses*, FORBES (July 7, 2015), http://www.forbes.com/sites/johngreathouse/2015/07/07/congress-latest-online-tax-grab-will-decimate-small-businesses/2/#4af9090f5b0e.

[99] RTPA at §2(c)(1)(A)(ii).

[100] Katie McAuliffe, *Amazon Can Support the Internet Sales Tax Because Amazon is Exempt*, FORBES (Sept. 4, 2013), http://www.forbes.com/sites/realspin/2013/09/04/amazon-can-support-the-internet-sales-tax-because-amazon-is-exempt/#7a6355d3ffb0; *see also* Amy Martinez, *Amazon Stands to Gain from Online-Sales Tax*, THE SEATTLE TIMES (June 10, 2013), http://old.seattletimes.com/html/businesstechnology/2021142588_amazonsalestaxxml.html (further discussing Amazon's switching of sides from opposing the MFA to supporting it).

uncollected taxes.[101] Amazon issued a response to both the investing public[102] and to the SCDR.[103] The SCDR determined that Amazon bears responsibility for collecting sales taxes on behalf of other sellers who use the website based on the SCDR's interpretation of the broad wording of SC § 12-36-910(A).[104] The time frame for South Carolina sales and use taxes allegedly owed by Amazon is significant in light of a tax-advantaged supply chain strategy approach by Amazon. In the SCDR's demand, sales and use taxes allegedly owed by Amazon started accumulating on the day of expiration (January 1, 2016)[105] of Amazon's sweetheart sales and use tax deal with South Carolina brokered in 2011.[106] The South Carolina General Assembly granted the tax deal in exchange for Amazon opening a distribution center in Cayce, SC (Lexington County).[107] According to our center of gravity model results, in 2011, not a single location in South Carolina was considered an optimal distribution location for Amazon, indicating that the tax deal played a role in the location decision.[108]

Interestingly, the SCDR emphasized Amazon's supply chain services (e.g. warehousing and distribution) provided to third party sellers as a trigger establishing Amazon as "a person in the business of selling tangible personal property at retail".[109] Thus, even if Amazon succeeded in optimizing their supply chain for the changing tax landscape under previous versions of the Amazon tax, the outcome of the SCDR case could reduce these gains. Further, since South Carolina previously brokered a tax deal with Amazon in exchange for distribution facilities, success by the SCDR could also send signals to other States' governments that feel embittered by their tax deals with Amazon. By employing a broader scope of responsibility for collecting online sales taxes, a positive outcome for the SCDR of the case hearing may invigorate other States to adopt similar approaches to target Amazon. Contemporaneous with the South Carolina dispute, the Multistate Tax Commission (the "MTC") is offering a tax amnesty to the very same Amazon third party sellers whose sales tax obligations associated with Amazon sales the SCDR alleges Amazon is responsible for.[110]

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[101] Eugene Kim, *Amazon Faces a Tax Fight in South Carolina That Could Change How Online Sellers Do Business*, CNBC (Aug. 15, 2017), https://www.cnbc.com/2017/08/15/amazon-faces-a-tax-fight-in-south-carolina-that-could-change-how-online-sellers-do-business.html.

[102] SEC filings, Amazon.com, Inc., Quarterly Report (Form 10-Q) (June 30, 2017) *available at* https://www.sec.gov/Archives/edgar/data/1018724/000101872417000100/amzn-20170630x10q.htm.

[103] Request for Contested Case Hearing, Amazon Services, LLC v. South Carolina Dept. of Rev., July 21, 2017, *available at* http://src.bna.com/rI4.

[104] *Id.*; more specifically, much of the focus was on the following passage from the S.C. Code Ann. Regs. 117-319: "When, however, warehousemen buy and sell property as a regular course of business such sales, if not otherwise exempted, are subject to the sales tax, including sales of goods held on consignment and including transactions in which the warehouseman acts as a broker selling goods not actually owned by him or in his possession at the time he accepts the order." *Id.* at 7.

[105] *Id.* at 1.

[106] Cassie Cope, *Controversial Amazon SC Tax Break Set to Expire in 2016*, THE STATE (Dec. 28, 2014), http://www.thestate.com/news/local/article13930880.html.

[107] *Id.*; *see also* Appendix B.

[108] *See* Appendix C.

[109] *Id.* at 4.

[110] Multistate Tax Commission, *Online Marketplace Seller Voluntary Disclosure Initiative*, Aug. 17, 2017 *available at* http://www.mtc.gov/getattachment/Nexus-Program/Online-Marketplace-Seller-Initiative/Online-Marketplace-Seller-Voluntary-Disclosure-Program-rev12.pdf.aspx (hereinafter "Tax Amnesty").

The MTC Tax Amnesty allows third party online sellers to apply for voluntary disclosure from August 17, 2017 – October 17, 2017 for twenty-three States and District of Columbia.[111] Notably, South Carolina **is not** [emphasis added] a participant in the amnesty.[112] Moreover, when comparing the center of gravity model results and tax deal brokering data with the State participants in the MTC Tax Amnesty, it is notable that of the 24 State participants, nearly half (11) either had Amazon terminate its Associates program in that location or brokered a favorable tax deal. Five of the MTC tax amnesty participants brokered tax deals with Amazon in exchange for distribution centers and/or other investment incentives; of these locations, two are efficient locations for Amazon's supply chain distribution system.[113]

Notably, the fact that not all State participants in the amnesty will definitely waive all alleged online back tax liabilities makes the amnesty precarious for third party sellers considering voluntary disclosure.[114] Yet, the fact that a third party seller can "apply to a state for voluntary disclosure anonymously and will not be required to disclose its identity to the state" until after an agreement is completed may offset this discretionary waiver of back taxes.[115] Given this attribute of the tax amnesty and a potential shift in the obligations of third party sellers via the pending South Carolina Amazon case, it may be best for third party sellers to hedge their bets by applying for the amnesty given the anonymity benefits and adopt a wait-and-see approach regarding the pending South Carolina Amazon case. As noted earlier, South Carolina is not participating in the MTC tax amnesty, however, if South Carolina wins and is able to hold Amazon responsible for third party sellers' taxes, then other States may follow South Carolina's lead.

III. Logistics Theory for Warehousing and Implications for the Changing Internet Sales and Use Tax Landscape

The logistics component of this article investigates and compares the pattern of distribution center site selection processes employed by Amazon across the United States from 1997 to 2017. The analysis operates under the assumption of the two hypotheses associated with the changes to internet sales and use tax law as a result of the passage of variations of the Amazon tax law.

Between 1997-2017 Amazon opened a total of 269 distribution centers across the U.S., closed eight, and converted one to a seasonal distribution center (Seattle, Washington).[116] Figure 1 displays the growth in non-seasonal U.S. Amazon Distribution Centers starting in 1997 until 2017, not inclusive of those centers that may have been closed for various reasons (ex. to avoid nexus for tax reasons). As Figure 1 shows, Amazon realized a 52.4% increase in the number of distribution centers in the period 2008-2012 as compared to the period 1997-2007 and a 603.1%

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[111] *Id*.
[112] *Id*.
[113] Texas, Tennessee, Massachusetts, Florida, and New Jersey.
[114] *Id*. (The various footnotes for each State participant in the MTC Tax Amnesty clearly shows an unwillingness to commit to a complete waiver of alleged online sales back-tax liabilities for participants. For example, some States, such as Minnesota, are committed to granting at least a shorter lookback period, while others, such as Nebraska, simply offer that they "will consider waiving back tax liability").
[115] *Id*. at 3.
[116] MWPVL International, *Amazon Global Fulfillment Center Network*, SUPPLY CHAIN AND LOGISTICS CONSULTANTS (March 2015), http://www.mwpvl.com/html/amazon_com.html [hereinafter "*Amazon Network*"]

increase in the number of distribution centers in the period 2013-2017 as compared to the period 2008-2012[117].

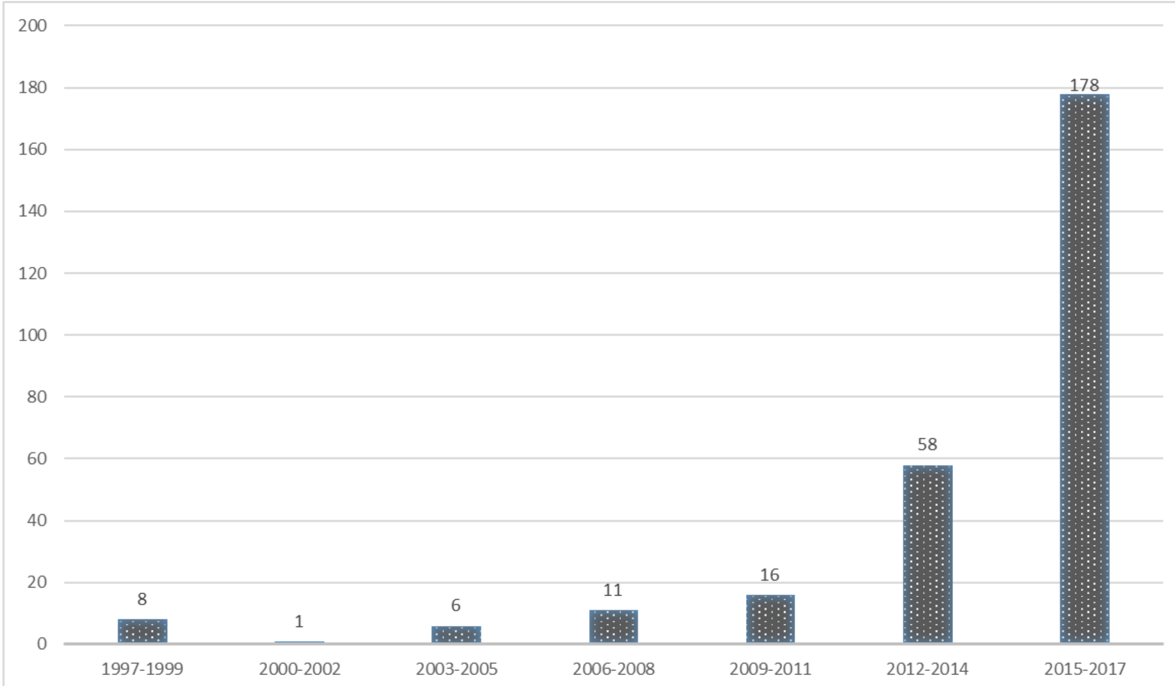

Figure 1: Number of New Amazon Fulfillment Distribution Centers[118]

Interestingly, when we look at the period surrounding 2009, (2009 is a threshold year for when States start to implement internet sales-use tax legislation) Amazon closed three distribution centers in 2009 in Munster, Indiana, Red Rock, Nevada, and Chambersburg, Pennsylvania and one later in 2001 in Irving, Texas, after a tax battle with the states, Amazon's behavior and pursued a strategy that pushed the company into the rural areas of America was based on avoiding the need to charge consumers with sales tax (See Appendix A). We can speculate that closing of distribution centers in 2009 is related to the internet sales and use tax implications. Amazon began cutting a lot of sweetheart internet and sales use tax deals over this time frame.[119] The deals delay their obligation to comply with the laws, enabling them to strategically get out ahead of the legislation and gain tax savings in the process. As 2013 approached, Amazon switched sides, from opposing to supporting, the MFA, and opened up 225 new distribution centers between 2013-2017.[120] Since this competitive advantage is coming to a close, the company has moved its fulfillment centers closer to concentrated points of demand to reduce its outbound transportation expense and closed facilities that were not located in optimal locations during the tax fight, such as Coffeyville, Kansas

[117] *Amazon Network*, *supra* note 93.

[118] Note that to run the analysis discussed later in the paper, the locations had to be mutually exclusive in regards to city and state. Therefore, for example, in 2010, Amazon had 2 locations in Phoenix, Arizona, but for analysis purposes, only 1 generic location is considered, that is, Phoenix, Arizona; Several resources were used to compile the list of Fulfillment centers such as avalara.com, blog.taxjar.com, mwpvl.com, cnn.com, and local news and journal outlets for each location.

[119] Investopedia, *Sweetheart Deal Definition*, http://www.investopedia.com/terms/s/sweetheartdeal.asp.

[120] *See* McAuliffe, *supra* note 92.

(opened in 1999) and Fernley, Nevada (also opened in 1999) as Amazon realigned its distribution network to be closer to larger metropolitan cities."[121]

Locational theory and decision analysis is used to evaluate Amazon's strategic location decisions, that is, to identify where to build the next single fulfillment center, and we compare the optimal location to get the product to the customer in relation to internet sales tax legislation. Location studies, in general, owe their origins to work in geography and their further development in the economics related discipline of regional science and land economics. Fundamental logistics books[122] discuss how to locate facilities such as factories and warehouses using a common approach called the Center of Gravity Method.[123] More current and applied work of Holmes examined the dispersion of Walmart in the United States through 2005 with a focus on the impacts of distribution costs on store locations.[124] The time frame assessed by Holmes did not account for the internet tax law conflicts associated with e-tailers such as Amazon and affiliates (since Walmart has a physical presence and operations in every state).[125] As a comparison, by 2005 Amazon had twelve distribution centers compared to Walmart with forty-two discount distribution centers and thirty-four grocery distribution centers.[126] In 2004, Wilson studied location modeling for distribution centers and referred to Chicago Consulting, but only focused on locations in Australia.[127]

A center of gravity model[128] is used to examine the associations that exist between distribution centers and locations based on the lowest average distance (in miles) to customers and the lowest possible transit lead-times to customers, represented by the U.S. population. Achieving lowest possible logistics lead times[129] is a key component in an efficient distribution supply chain

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121 http://www.mwpvl.com/html/amazon_com.html

122 *See generally* DONALD J. BOWERSOX, LOGISTICAL MANAGEMENT (1974) [discussing contemporary logistical practices]; *see also* EDWARD J. BARDI & JOHN J. COYLE, THE MANAGEMENT OF BUSINESS LOGISTICS (1984) [discussing fundamental business logistics concepts]; *see also* RONALD H. BALLOU, BUSINESS LOGISTICS MANAGEMENT: PLANNING, ORGANIZING, AND CONTROLLING THE SUPPLY CHAIN (1999) [discussing logistics, transport, supply chain strategy and planning].

123 The "center of gravity" method determines the coordinates for the optimal location based on the customer service level requirements. The Center of Gravity technique uses the Euclidean distance (the distance in a straight line) and captures the commonly accepted idea of "increasing marginal costs," which is that the incremental service levels decrease the farther from the target (of zero travel) to determine optimal locations; *see generally* ALAN GEOFFREY WILSON, URBAN AND REGIONAL MODELS IN GEOGRAPHY AND PLANNING (1974).

124 Thomas J. Holmes. *The Diffusion of Wal-Mart and Economies of Density*, ECONOMETRICA, 79(1) 253-302 (2011).

125 As of January 31, 2005, Walmart had 3,151 retail units in the United States; WALMART CORPORATION, VESTED INTEREST: WALMART 2005 ANNUAL REPORT 17, http://s2.q4cdn.com/056532643/files/doc_financials/2005/2005-annual-report-for-walmart-stores-inc_130202966828901734.pdf; By January 31, 2015, Walmart had 5,163 retail units in the United States; Walmart Corporation, *Our Locations- United States*, WALMART CORPORATION (March 9, 2015), http://corporate.walmart.com/our-story/our-business/locations/#/united-states.

126 MWPVL International, *The Walmart Distribution Center Network in the United States*, SUPPLY CHAIN AND LOGISTICS CONSULTANTS (March 2015), http://www.mwpvl.com/html/walmart.html.

127 David Wilson. *Location Modeling in Logistics*, PROCEEDINGS OF THE CONFERENCE OF AUSTRALIAN INSTITUTES OF TRANSPORT RESEARCH (CAITR), 36 (2004).

128 WILSON, *supra* note 98, at 66.

129 Lead time is the time (delay) between the initiation of an order and the completion of its fulfillment; *see generally* JAY HEIZER AND BARRY RENDER, OPERATIONS MANAGEMENT (2013).

strategy due to the fact that strategically located distribution centers facilitate a rapid processing of orders and shipments of products to customers.[130]

Wilson [131] published the doubly constrained population weighted center of gravity model to develop a matrix of city origins and city destination given by:

$$T_{ij} = A_i B_j O_i D_j f(C_{ij});$$

$$A_i = \frac{1}{\sum_{j=1}^{J} B_j D_j f(C_{ij})};$$

$$B_i = \frac{1}{\sum_{i=1}^{I} A_i O_i f(C_{ij})};$$

$$f(C_{ij}) = e^{\alpha(c_{ij})}, \alpha < 0$$

where T_{ij} represents the freight trips between zone i and j; O_i is the originating freight trips for zone i; D_j is the destination freight trips for zone j; C_{ij} represents the "distance" between zone i and j; and A_i, B_j are the balancing factors solved iteratively. Finally, α is the friction factor which determines the ease of travel between any two zones.

We partnered with Chicago Consulting[132] to simulate the model utilizing their software and algorithms to compare optimal strategic DC decisions to Amazon's actual DC choices (see Appendix B). The software was limited to evaluate 30 distribution centers at any one time. Since Amazon operated more than 30 distribution centers after 2011, this limited our quantitative analysis to the time period between 1997 (when Amazon opened up their first distribution center) and 2011 (after 2011 Amazon operated more than 30 distribution centers). This time period is appropriate to aid us in the investigation regarding Amazon's behavior given the change in the tax legislation landscape in 2007-20008 and we evaluate and compare the difference in Amazon's strategic location decisions given the significant change in 1997-2007 compared to the period after New York State enacted sales tax legislation, 2008-2011. After 2011, we provide a qualitative analysis discussed later in this paper.

The urban population (a measure of demand) used in the model is based on 2014 population figures, that is, a date after which we compiled the facility distribution data. We find that the 2014 population data is appropriate and operate under the assumption that the pattern of urban population growth is relatively consistent over the time period for our study, alternatively, this means that the ratio of population/demand for cities is relatively consistent as well. For example, based on the U.S. census that was conducted in 2000, and again in 2010[133] (the next time it will be conducted is in 2020), New York-Northern New Jersey-Long Island is the most populated metropolitan area and the population changed by only 3.1% between 2000-2010, Los Angeles-

130 PATRIK JONSSON, LOGISTICS AND SUPPLY CHAIN MANAGEMENT (2008).
131 WILSON, *supra* note 98, at 66.
132 *See generally* CHICAGO CONSULTING, http://www.chicago-consulting.com/ (last visited May 28, 2016).
133 *See generally* UNITED STATES CENSUS 2010, http://www.census.gov/2010census/ (last visited May 28, 2016).

Long Beach-Santa Ana remained the second most populated area, and Chicago-Joliet-Naperville remained third, etcetera[134].

The results for the optimal location differ depending on the number of distribution centers in the network (see Appendix C). For example, our data and analysis shows that if any one organization has only 1 distribution center, then Vincennes, IN would provide the lowest possible lead-time; alternatively, if any one organization has only two distribution center, then Ashland, KY, and Porterville, CA would provide the lowest possible lead-times. Therefore, if warehouses are not in these optimal locations, this will cause the average transit lead time and the average distance to customers to be higher causing less than optimal conditions for shipment of products to customers.

So how does Amazon's strategic distribution center location decision compare to the best possible, or optimal, locations? The results of the model show that Amazon's network of distribution centers would have been better located to serve the U.S. population than where they were located (see Appendix C). From an intuitive perspective, Amazon's network misses strategic locations in crucial regions such as Southern California, Chicago and Atlanta, since these locations provide better service and at a lower cost than other (non-optimal) locational choices.[135] In addition, Amazon's multiple locations in Kentucky, Pennsylvania and Tennessee overlap each other creating a redundancy (see Appendix B) which affects Amazon's ability to increase the speed of delivery of products to areas all across the U.S. Amazon ramped up activity in California in 2012 after it negotiated a "sweetheart" deal to delay the tax that was enacted in 2011 until 2012.

We use metrics to quantitatively evaluate the difference between Amazon's DC locations with the best possible solution (see Table 1). When examining the warehouse decision problem, emphasis was placed on minimizing the average distance (in miles) to customers and the average lead-time (in days), to provide optimal delivery of products to customers. We compare each year that Amazon opened new distribution centers to the optimal strategic location that would enable fastest delivery of products to customers. The change (Δ) in the average distance (in miles) to customers between Amazon and the optimal strategic DC location during the period 1997 – 2011 ranges from an increase of 33%[136] to 165%; Alternatively, the change in the average lead time (in days) to customers between Amazon and the optimal strategic DC location in ranges from an increase of 7% to 31% between 1997 – 2011:

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[134] UNITED STATES CENSUS BUREAU, C2010BR-01, POPULATION DISTRIBUTION AND CHANGE 2000 TO 2010 (March 2011), https://www.census.gov/prod/cen2010/briefs/c2010br-01.pdf.

[135] Chicago Consulting, *supra* note 106.

[136] In 1997, with two distribution centers open, Amazon averaged 674 miles to get products to customers. The difference between Amazon's average (674) and the best possible scenario with two distribution centers (506 average miles) is 168 average miles. The ratio 168/506 *100 is the difference (33%) between Amazon's strategic DC locational choices and the optimal DC location choice to get the product to customers as fast as possible, that is, Amazon's decisions increased the average distance to customers by 33%.

Year	Actual		Best Possible *(With the Same Number of Warehouses)*		Average Distance (Miles) to customers Δ	Average Lead-time (Days) Δ
	Average Distance (Miles) to customers	Average Lead-time (Days)	Average Distance (Miles) to customers	Average Lead-time (Days)		
1997	674	2.00	506	1.53	33%	31%
1999	302	1.15	211	1.07	43%	7%
2000	296	1.15	198	1.04	49%	11%
2001	347	1.23	227	1.10	53%	12%
2003	343	1.23	211	1.07	63%	15%
2005	320	1.21	170	1.04	88%	16%
2007	262	1.16	133	1.01	97%	14%
2008	245	1.16	106	1.01	131%	15%
2009	256	1.16	122	1.01	110%	15%
2010	246	1.16	102	1.01	141%	15%
2011	228	1.13	86	1.00	165%	13%

Table 1: Comparison of Actual and Best Possible Locations Over Time for Amazon

To test the hypothesis that there was a change in Amazon's behavior related to the internet tax law changes, we examine the time frame that states first enacted sales tax legislation starting with New York State's Amazon Law enacted in 2008[137] and several states following suit. We performed a t-test for unequal variances and find that the change in the average lead time (in days) for the distribution center locations comparing Amazon's locations decision to the best possible locations is significantly different (two-tail p<.01) for the period 1997-2007 compared to the period after New York State enacted sales tax legislation, 2008-2011. Specifically, when comparing the difference between the actual (data driven) average distance to customers (in miles) to the best possible solution for the periods 1997-2007 and 2008-2011, averages a difference of 61% and 137%, respectively. The change from 61% in the period 1997-2007 to 137% in the period 2008-2011 demonstrates empirical evidence that supports Amazon's decreasing concern to locate distribution centers in close proximity to customers.

The results (Table 1) validate a change in Amazon's behavior from a focus on optimal distribution center location decisions to maximize customer service in their supply chain (hypothesis 1) to one aimed to mitigate tax implications through sales tax avoidance by alteration of their strategic distribution model (hypothesis 2). For example, in 2008, Amazon had a presence in 10 states while the results show that Amazon should have had a presence in 19 different states to maximize their proximity to customers. Amazon was minimizing the number of states in which they had a presence (they had five distinct distribution centers in various locations in Kentucky alone). Additionally, Amazon closed a distribution center in 2011 in a prime location in Texas (the Irving, TX distribution center was opened in 2005), in response to the changes in Texas' tax laws.

[137] N.Y. State Tax Law § 1101(b)(8)(vi); *See* Overstock.com, Inc. v. New York State Dep't of Taxation & Fin., 20 N.Y.3d 586, 590, 987 N.E.2d 621, 622 (2013).

It should be noted, however, that there is a decrease in the time to get the product to the customer, that is, from an average of 1.30 days of transit time for the time period of 1997-2007 to an average of 1.15 days of transit time for the time period of 2008-2011. This decrease in transit time is merely due to the increased number of distribution centers (refer to Figure 1) but the location of the distribution centers is not optimal to best suit a strategy to get the product to the consumer in the fastest possible time allotted that would support a strategy that maximizes customer service, such as, for example, same day delivery services.

However, in 2013, Amazon's strategic distribution center location decisions changed once again. Amazon currently has an enormous distribution network and operates a variety of distribution and fulfillment centers in the US including small and large sortable, large non-sortable, regional sortation centers, Prime Now Hubs, specialty (including cold storage grocery (Amazon Pantry and Fresh Distribution Center), apparel and footwear, redistribution, return, delivery stations, and 3PL outsourced facilities. The first Amazon Pantry and Fresh Distribution center were located in San Bernardino, CA (2013), sortation center in chesterfield, VA (2012), delivery station in New York, NY (2014), and Prime Now Hub in New York, NY (2014), respectively.

As of December 2017, Amazon had a presence in 31 states, 25 (or 81%) of which have enacted sales tax legislation (see Table 2 on next page)[138] including Arizona, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, and Wisconsin.

[138] http://www.mwpvl.com/html/amazon_com.html (last accessed 9/27/2016)

Table 2: The Total number of Amazon DC's that had been opened corresponding to the state enacted tax year*

A.Number of new DC's that Amazon opened during the year.
B.Cumulative number of DC's that Amazon opened to date
C. Number of New States Amazon entered during the year to establish DC's

** Washington facility opened up in 1997 was converted to seasonal facility 2001, and Amazon later re-entered Washington with a full-time operating facility in 2007; Georgia, McDonough facility opened in 1999 closed in 2001 and Amazon later re-entered Georgia in 2014; Irving, Texas facility opened in 2005 closed in 2011 and Amazon later re-entered Texas in 2013; Munster, Indiana facility opened in 2007 closed in 2009; Coffeyville, Kansas facility opened in 1999 closed in 2015 and Amazon already opened up another DC in Kansas in 2014; Red Rock, Nevada facility opened in 1999 closed in 2009 and Amazon later re-entered Nevada in 2014; Fernley, Nevada facility opened in 1999 closed in 2015; Grand Forks, North Dakota facility opened in 1999 closed in 2005 and Amazon later re-entered North Dakota in 2014; Chambersburg, Pennsylvania facility opened in 1999 closed in 2009 and Amazon later re-entered Pennsylvania in 2014*

D. Cumulative Number of States Amazon entered to establish DC's
E. Number of States that Amazon has a DC in and have Initiated legislation (the percentage of states that Amazon located distribution centers that have initiated legislation)
F. Number of States that Amazon has a DC in and have legislation is taking effect, that is, sales tax is being collected (the percentage of states that Amazon located distribution centers that are collecting sales tax)

	'97	'99	'00	'03	'05	'06	'07	'08
A	2	6	1	1	5	1	5	5
B	2	8	9	8	12	13	18	23
C	2	5	0	1	1	0	4	0
D	2	7	7	6	6	6	10	10
E	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
F	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	'10	**'11**	**'12**	**'13**	**'14**	**'15**	**'16**	**'17**
A	7	9	11	21	26	64	59	55
B	27	35	46	67	93	155	214	269
C	1	2	1	2	6	6	2	2
D	11	12	13	15	21	27	29	31
E	0 (0%)	1 (8.3%)	7 (53.8%)	10 (66.7%)	16 (76.2%)	21 (77.8%)	23 (79%)	25 (81%)
F	0 (0%)	0 (0%)	2 (15.4%)	6 (40.0%)	15 (71.4%)	20 (74.1%)	23 (79%)	25 (81%)

**Note that only years in which Amazon opened up new distribution centers are included in the table*

Amazon was careful to steer clear of the five states that had enacted sales tax legislation and were starting to collect sales tax through 2012 (58% of states that amazon had DC's in proposed sales tax legislation, while only 17% were collecting sales tax). In 2012, while 10 states had now enacted sales tax legislation, this is however, the first year in which Amazon entered into states that enacted sales tax legislation, namely Pennsylvania and California. Amazon already had several facilities located in Pennsylvania years before the legislation took effect in 2012, and Amazon entered California the same year that the sales tax legislation took effect in that state, but California has been noted by Chicago Consulting, Inc. as being an essential distribution location to be able to get the product to the customer. In 2013, Amazon followed entering into Virginia, New Jersey, and Texas that had enacted sales tax legislation.

Amazon's original strategy based on avoiding the need to charge consumers sales tax and reducing costs is undermined by the number of states that have proposed sales tax legislation (71%, 76%, 78%, 79%, and 81%) of states at the end of 2013, 2014, 2015, 2016, and 2017, respecively[139] (see Table 2)). Since this competitive cost advantage is coming to a close, Amazon is focusing on increasing the speed of delivery of packages by strategically positioning its distribution centers closer to metropolitan areas (in 2004, 38% of Amazon's fulfillment capacity was less than 200 miles from a major metropolitan area compared to 79% today[140]), opening up smaller sortation centers, purchasing trucks for its own fleet to make deliveries between fulfillment centers and sorting locations, and investment in research and development of Prime Air, which is a delivery system using small unmanned aerial vehicles (drones) claiming to get packages under 5 pounds to customers in 30 minutes or less[141]. Amazon increased R&D by over 35% in the last quarter of 2014 compared to the last quarter of 2015, spending over $12 billion in R&D during the 2015 calendar year alone[142].

More specifically, Amazon started offering same day delivery services to select locations in 2015 and currently offers this service in 16 metro areas in the U.S.[143]. As of 2016, Amazon offers same-day shipping in metro areas of New York City, Atlanta, Baltimore, Boston, Chicago, Indianapolis, Tampa Bay, Philadelphia, Washington D.C., Dallas, Los Angeles, Phoenix, San Francisco, Seattle, Chicago, and Orlando.[144] In an effort to integrate their distribution and compete with major carriers, to allow them to offer same-day service, Amazon is investing in new shipping warehouse facilities that are smaller, called "sortation centers". There are eight sortation centers opened as of 2014 in Kent, WA, Atlanta, GA, Dallas, TX, Houston, TX, Phoenix, AR, Avenel, NJ, Hebron, KY, and San Bernardino, CA[145]. Amazon has announced plans to open 15 specialized

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[139] Amazon.com, *About Sales Tax*, AMAZON.COM, INC. (May 28, 2016), https://www.amazon.com/gp/help/customer/display.html?nodeId=468512.

[140] Bob Trebilcock. *Supply Chain: Amazon is Changing the Rules of the Game*, MODERN MATERIALS HANDLING (December 14, 2012), http://www.mmh.com/article/supply_chain_amazon_is_changing_the_rules_of_the_game.

[141] Ahiza Garcia, *Amazon Trucks Hit the Road to Speed Deliveries*, CNNMONEY (December 4, 2015), http://money.cnn.com/2015/12/04/news/companies/amazon-delivery-trucks/.

[142] Google Finance, *Amazon.com, Inc. Financials*, GOOGLE (May 28, 2016), https://www.google.com/finance?q=NASDAQ%3AAMZN&fstype=ii&ei=6zXZU5j6KMqfrAHHp4GoCA.

[143] Amazon.com, *Free-Same Day Delivery*, AMAZON.COM, INC. (May 28, 2016), http://www.amazon.com/b?node=8729023011.

[144] *Id*.

[145] Mike O'Brien, *Amazon to Open 15 Sortation Centers*, MULTICHANNEL MERCHANT (Aug 05, 2014), http://multichannelmerchant.com/opsandfulfillment/warehouse/amazon-open-15-sortation-centers-2014-05082014/.

sortation centers this year alone, designed to be speedier and expand deliveries to Sundays, which gets packages to nearby USPS offices for last-mile service.

IV. Conclusion

The data compiled matching up Amazon's reaction to alternations in sales and use tax legislation and policies following the enactment of the New York Amazon tax law show a transition from Hypothesis 1 to Hypothesis 2. This really begins to manifest around 2008 demonstrating a significant reactionary shift in Amazon's supply chain strategy from speed of delivery to deterring costs associated with new state Amazon 'internet' sales and use tax laws and policies.[146] Evaluating the data, it is clear that efficiency in their supply chain diminished in response to the growth of various Amazon-style internet sales tax legislation. However, after Amazon concluded an acceptable number of tax sweetheart deals, by 2013 there is a shift back to Hypothesis 1. Thus, internet sales and use tax legislation's influence over Amazon's strategic supply chain decision-making was effectively nullified at this point. Consequently, Amazon started supporting federal legislation they previously opposed on the internet sales and use tax issue around 2013.

While much of the opposition to the Marketplace Fairness Act focused on how the MFA harms small e-tailers, the compilation of Amazon's DC/warehousing and internet sales and use tax legislative data in our model resulted in an outcome demonstrating the negative consequences to large e-tailers, such as Amazon. This adds a new layer to the internet sales and use tax discussion which previously focused on small sellers and marketing affiliate impacts. Thus, the current patchwork of state internet sales and use tax laws undermine e-tailer operational effectiveness and diminish consumer value by negatively impacting supply chain efficiency for large e-tailers in addition to potentially harming small sellers and marketing affiliates. This is in addition to concerns voiced by numerous researchers and commentators regarding the impact of legislation such as the MFA on small and micro e-tailers.

Today, Amazon has more than 70 domestic fulfillment centers in 30 states.[147] Amazon is investing to provide faster service to its customers by building DC's near major metropolitan areas. Amazon is making deals with states where it plans to open up distribution centers in optimal locations (see Appendix A), and showing support of the MFA.[148] It can be argued that, the increase in the number of states that have implemented the "Amazon sales tax" laws, and Amazon's subsequent support of the Marketplace Fairness Act, allowed Amazon to focus on same-day deliveries; this is represented by the shift from Hypothesis 1 to Hypothesis 2 and back to Hypothesis 1 over the corresponding time periods assessed.

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146 Another potential factor encouraging state revenue agencies to push for more revenue could be associated with the timing since this was in the midst of the Global Financial Crisis.
147 *Amazon Network*, *supra* note 93.
148 Brad Tuttle, *Amazon Supports a Bill Forcing Online Shoppers to Pay Sales Tax,* TIME (Nov. 11, 2011), http://business.time.com/2011/11/11/amazon-supports-a-bill-forcing-online-shoppers-to-pay-sales-tax/.

Appendix A: Amazon Tax Law Implementations and Reactions

Year Law or Deal Initiated	Year Tax Law Takes Effect	State	Amazon.com, Inc.'s Reaction
2008	2008	NY	Went all the way to the U.S. Supreme Court
2009	2014	NC	Amazon ended affiliates program; legal problems delayed tax collection; Amazon began collecting on Feb. 1, 2014
2009	2009	RI	Amazon ended affiliates program; Amazon began "voluntarily collecting" on Feb. 1, 2017.
2009	N/A	HI	Amazon threatened to end affiliates program; Governor vetoed tax; Amazon collecting w/national program April 1, 2017
2010	N/A	CO	Amazon ended affiliates program; Law tied up in courts by Direct Marketing Association (trade association); Amazon began collecting Feb. 1, 2016.
2010	2010 for notice; 2017 for collection	OK	Use tax notification law requiring out-of-state internet retailers to provide notification of use tax requirements; final Amazon style law adopted in 2017; Amazon began collecting March 1, 2017.
2011	2011	VT	Amazon ended affiliates program; Amazon began collecting on Feb. 1, 2017 (VT modified Amazon law went into effect July 2017….so Amazon complied several months early).
2011	2011	AR	Amazon ended affiliates program; Amazon finally began collecting in Arkansas on April 1, 2017 along with remaining others as part of NATIONWIDE announcement to collect.
2011	2011 use tax notify 2016 Amazon tax law	SD	Use tax notification law requiring out-of-state internet retailers to provide notification of use tax requirements [Similar to OK's Amazon law]; Amazon began collecting on Feb, 1, 2017.
2011	2016	LA	Amazon Tax Legislative Proposals failed until 2016; Amazon began collecting Jan. 1, 2017.
2011	2015	IL	Illinois Supreme Court vetoed law – cited Internet Tax Freedom Act [ITFA] in 2011. Amended law passed in 2015 and Amazon begins collection then. Facilities in IL in 2017?
2011	N/A	ID	Proposal failed; Began collecting with nationwide announcement on April 1, 2017.
2011	2012	CA	Amazon threatened to end affiliates program. CA made a deal to delay tax. Amazon reinstated affiliates program and collected starting in 2012.
2012	2012	PA	Amazon refused to comply for 8 months (Feb. [when law initiated] – Sept. 2012 (Amazon started to collect)
2012	2013	GA	Amazon required to start collection in September 2013
2012	2013	AZ	Not a specific Amazon law, but brokered deal due to Amazon warehouses in AZ- Amazon began collecting State level AZ tax on Feb. 1, 2013

2012	2012	TX	TX stated that current sales tax law already applied to Amazon and sent a bill ($269m) to Amazon to collect back taxes. Amazon closed Irving distribution center.; Amazon brokered deal in April 2012 for new distribution centers and began collecting in July 2012.
2012	2013	MA	Amazon makes a deal to open distribution centers (incl. jobs & investment in the state) to delay tax collection until 2013 (law based around Amazon deal); Collects on Nov. 1, 2013
2013	2013	MO	Amazon ended affiliates program; Amazon began collecting on Feb. 1, 2017.
2013	2013	MN	Amazon ended affiliates program; Amazon started collecting voluntarily on Oct. 1, 2014; Distribution plans.
2013	2015	OH	Governor vetoed the law in 2013 but cut a deal with Amazon to start collection in 2015 in exchange for web services data centers.
2013	2014	MD	Announced in 2013; Amazon began collecting on Oct. 1, 2014 due to Southeast Baltimore Distribution Center.
2013	2013	IA	Law passed/no reaction due to no physical presence/affiliates issues; Amazon began collecting voluntarily on Jan. 1, 2017 perhaps in anticipation of 2017 National Collection.
2011	2013	CT	Amazon ended affiliates program; Amazon began collecting on Nov. 1, 2013 in agreement to invest in CT.
2012	2013	NJ	Amazon cut a deal in 2012 to delay tax by fifteen months, as well as other financial incentives, in an agreement to build distribution centers in the state. Began collecting on July 1, 2013.
2013	2013	VA	Amazon makes capital investment in the state and begins collecting on Sept. 1, 2013.
2013	2013	WI	Amazon began collecting on Nov. 1, 2013; Opened Kenosha DC in 2015.
2013	2015	MI	Amazon began collecting on Oct. 1, 2015.
2013	2013	WV	Amazon initially ended affiliates program, but then complied/began collecting in October 2013.
2013	2013	ME	Amazon ended affiliates program; Amazon began collecting as part of nationwide collection on April 1, 2017.
2011	N/A	MS	Law failed in legislature; Amazon began collecting on Feb. 1, 2017.
2012	2014	IN	Amazon made a deal with Gov. Mitch Daniels to start collecting sales tax in January 2014.
2014	2014	FL	In 2013 Amazon makes a deal to open distribution centers (inc. jobs & investment in the state) to delay tax collection until May 2014 (law based around Amazon deal)
2012	2014	NV	In 2012 Amazon makes a deal to open distribution centers (inc. jobs & investment in the state) to delay tax collection until January 2014 (law based around Amazon deal)

2012	2014	TN	In 2012 Amazon made a deal to delay sales tax collection until January 2014
2011	2016	SC	In 2011 Amazon makes a deal to open distribution centers (inc. jobs & investment in the state) to delay tax collection until January 2016 (law based around Amazon deal)
2015	2016	AL	Alabama implemented a law in 2015; Amazon started collecting on Nov. 1, 2016.
2017	2017	NE	Amazon started collecting in Nebraska on Jan 1, 2017 (anticipation of Nationwide collection efforts).
2017	2017	NM	Amazon started collecting in New Mexico on April 1, 2017 as part of NATIONWIDE collection.
2017	2017	UT	Amazon started collecting in Nebraska on Jan 1, 2017 (anticipation of Nationwide collection efforts).
2017	2017	WY	Amazon started collecting in Nebraska on March 1, 2017 (anticipation of Nationwide collection efforts).

Appendix B: Amazon Facilities

State	City	Year Amazon DC Opened	Year Amazon DC Closed/ Converted	Year State Tax Law Takes Effect
Delaware	New Castle	1997	--	--
Washington	Seattle	1997	2001	--
Georgia	McDonough	1999	2001	--
Kansas	Coffeyville	1999	2015	--
Kentucky	Campbellsville	1999	--	--
Nevada	Fernley	1999	2015	2014
Nevada	Red Rock	1999	2009	2014
North Dakota	Grand Forks	1999	2005	--
Kentucky	Lexington (1)	2000	--	--
Pennsylvania	Chambersburg	2003	2009	2012
Kentucky	Hebron (1)	2005	--	--
Kentucky	Hebron (2)	2005	--	--
Kentucky	Louisville	2005	--	--
Kentucky	Shepherdsville (1)	2005	--	--
Kentucky	Shepherdsville (3)	2005	--	--
Texas	Irving	2005	2011	2012
Kentucky	Lexington (2)	2006	--	--
Arizona	Phoenix (1)	2007	--	--
Indiana	Munster	2007	2009	--
Kentucky	Hebron (3)	2007	--	--
New Hampshire	Nashua	2007	--	--
Washington	Bellevue	2007	--	--
Arizona	GoodYear	2008	--	--
Indiana	Plainfield (1)	2008	--	--
Indiana	Whitestown	2008	--	--
Nevada	Las Vegas	2008	--	2014
Pennsylvania	Hazleton	2008	--	2012
Arizona	Phoenix (2)	2010	--	--
Pennsylvania	Breinigsville (1)	2010	--	2012
Pennsylvania	Carlisle (1)	2010	--	2012
Pennsylvania	Carlisle (2)	2010	--	2012
Pennsylvania	Lewisberry	2010	--	2012
Virginia	Sterling	2010	--	2013
Arizona	Phoenix (3)	2011	--	--
Indiana	Indianapolis	2011	--	--

Indiana	Plainfield (2)	2011	--	--
Kentucky	Shepherdsville (2)	2011	--	--
Pennsylvania	Breinigsville (2)	2011	--	2012
South Carolina	Cayce	2011	--	2016
Tennessee	Charleston	2011	--	2014
Tennessee	Chattanooga	2011	--	2014
Tennessee	Lebanon (1)	2011	--	2014
Washington	Sumner	2011	--	--
Delaware	Middletown	2012	--	--
Indiana	Jefferson	2012	--	--
South Carolina	Spartanburg	2012	--	2016
Tennessee	Murfreesboro	2012	--	2014
Virginia	Chesterfield	2012	--	2013
Virginia	Petersburg	2012	--	2013
California	San Bernardino (1)	2012	--	2012
California	San Bernardino* (2)	2013	--	2012
California	Patterson	2013	--	2012
California	Stockton[1]	2013	--	2012
California[5]	Tracy	2013	--	2012
Kentucky	Shepherdsville	2013	--	--
New Jersey	Avenel*	2013	--	2013
New Jersey	Avenel[4]	2013	--	2013
Pennsylvania	Carlisle	2013	--	2012
Tennessee	Lebanon (2)	2013	--	2014
Texas	Coppell	2013	--	2012
Texas	Haslet	2013	--	2012
Texas	Schertz	2013	--	2012
Washington	DuPont	2013	--	--
After 2013, this list only includes facilities if it was the first time Amazon had established a presence in that state (or reestablished after the closing of facilities earlier established)				
Florida	Davenport*	2014	--	2014
Georgia	Atlanta*	2014	--	2013
Kansas	Lenexa*	2014	--	--
Maryland	Baltimore*	2014	--	2014
Massachusetts	Stoughton*	2014	--	2013
New York	New York[2]	2014	--	2008
North Carolina	Concord*	2014	--	2014
Wisconsin	Kenosha*	2014	--	2013
Connecticut	Windsor	2015	--	2013
Illinois	Chicago[2]	2015	--	2015

Michigan	Trenton*	2015	--	2015
Minnesota	Shakopee*	2015	--	2013
Oregon	Portland[3]	2015	--	--
Colorado	Aurora*	2016	--	N/A
Ohio	Cincinnati[3]	2016	--	2015

**sortation center*
[1] *large non-sortable items fulfillment center outsourced to 3PL Menlo Logistics*
[2] *Delivery Station*
[3] *Prime Now Hub*
[4] *Pantry and Fresh Distribution Center*
[5] *Additionally, in 2013 Amazon opened up nine more facilities in California (one was an Amazon Pantry facility and eight were Delivery Station facilities in various locations)*

Appendix C: Center of Gravity Model Results

YEAR	Actual Locations			Best Possible Locations with same number of locations		
1997	New Castle DE	Seattle WA		Ashland KY	Porterville CA	
1999	New Castle DE	Campbellsville KY	Grand Forks ND	Brooklyn NY	Chicago IL	Bell Gardens CA
	Seattle WA	Fernley NV	Red Rock NV	Athens GA	Palestine TX	Bonney Lake WA
	Coffeyville KS	McDonough GA		Palm Bay FL	Aurora CO	
2000	New Castle DE	Campbellsville KY	Grand Forks ND	Brooklyn NY	Chicago IL	Bell Gardens CA
	Seattle WA	Fernley NV	Red Rock NV	Aiken SC	Palestine TX	Bonney Lake WA
	Coffeyville KS	McDonough GA	Lexington KY	Lakeland FL	Denver CO	San Juan PR
2001	New Castle DE	Fernley NV	Lexington KY	Brooklyn NY	Bell Gardens CA	Bonney Lake WA
	Coffeyville KS	Grand Forks ND		Chicago IL	Grand Prairie TX	
	Campbellsville KY	Red Rock NV		Palm Bay FL	Athens GA	
2003	New Castle DE	Fernley NV	Lexington KY	Brooklyn NY	Chicago IL	Bell Gardens CA
	Coffeyville KS	Grand Forks ND	Chambersburg PA	Athens GA	Palestine TX	Bonney Lake WA
	Campbellsville KY	Red Rock NV		Palm Bay FL	Aurora CO	
2005	New Castle DE	Fernley NV	Chambersburg PA	Astoria, NY	Pasadena, CA	Athens, GA
	Coffeyville KS	Red Rock NV	Irving Texas	Rockford, IL	Palestine, TX	Bonney Lake WA
	Campbellsville KY	Lexington KY	Hebron KY	Oakland CA	Marion OH	Lakeland FL
	Louisville KY	Shepherdsville KY		San Juan PR	Aurora, CO	
2007	New Castle DE	Red Rock NV	Louisville KY	Passaic NJ	Pasadena, CA	Buford GA
	Coffeyville KS	Chambersburg PA	Shepherdsville KY	Chicago, IL	College Station TX	Bonney Lake WA
	Campbellsville KY	Irving Texas	Lexington KY	Oakland CA	Mansfield OH	Lakeland FL
	Fernley NV	Hebron KY	Phoenix AZ	San Juan PR	Lakeville MN	Boulder CO
	Nashua NH	Bellevue WA	Munster IN	Harrisonville MO	Waipahu HI	Springfield MO
2008	New Castle DE	Lexington KY	Shepherdsville KY	Astoria NY	Glendale CA	Atlanta GA
	Coffeyville KS	Chambersburg PA	Phoenix AZ	Cicero IL	Waco TX	Bonney Lake WA
	Campbellsville KY	Irving Texas	Nashua NH	Lakeland FL	Boulder CO	San Juan PR
	Fernley NV	Hebron KY	Bellevue WA	Oakland CA	Lakewood OH	Waipahu HI
	Red Rock NV	Louisville KY	Munster IN	Alexandria VA	Harrisonville MO	Anoka MN
	GoodYear AZ	Whitestown IN	Hazleton PA	Phoenix AZ	Jackson MS	Rock Hill SC
	Plainfield IN	Las Vegas NV		Peabody MA	Houlton ME	
2009	New Castle DE	Hebron KY	GoodYear AZ	Passaic NJ	Glendale CA	Athens, GA

	Coffeyville KS	Louisville KY	Plainfield IN	Chicago IL	College Station TX	Bonney Lake WA
	Campbellsville KY	Shepherdsville KY	Whitestown IN	Oakland CA	Mansfield OH	Lakeland FL
	Fernley NV	Phoenix AZ	Las Vegas NV	San Juan PR	Lakeville MN	Boulder CO
	Lexington KY	Nashua NH	Hazleton PA	Phoenix AZ	Waipahu HI	Gaithersburg MD
	Irving Texas	Bellevue WA		Waco TX	Hattiesburg MS	
2010	New Castle DE	Louisville KY	Plainfield IN	Astoria NY	Glendale CA	Atlanta GA
	Coffeyville KS	Shepherdsville KY	Whitestown IN	Cicero IL	Waco TX	Bonney Lake WA
	Campbellsville KY	Phoenix AZ	Las Vegas NV	Lakeland FL	Aurora CO	San Juan PR
	Fernley NV	Nashua NH	Hazleton PA	Oakland CA	Lakewood OH	Waipahu HI
	Lexington KY	Bellevue WA	Breinigsville PA	Alexandria VA	Harrisonville MO	Anoka MN
	Irving Texas	GoodYear AZ	Carlisle PA	Phoenix AZ	Jackson MS	Rock Hill SC
	Hebron KY	Lewisberry PA	Sterling VA	Peabody MA	Lawrenceburg , IN	Clearfield UT
2011	New Castle DE	Shepherdsville KY	Las Vegas NV	Astoria NY	Glendale CA	Atlanta GA
	Coffeyville KS	Phoenix AZ	Hazleton PA	Cicero IL	Mesquite TX	Bonney Lake WA
	Campbellsville KY	Nashua NH	Breinigsville PA	Clermont FL	Aurora CO	San Juan PR
	Fernley NV	Bellevue WA	Carlisle PA	Oakland CA	Lakewood OH	Waipahu HI
	Lexington KY	GoodYear AZ	Lewisberry PA	Alexandria VA	Olathe KS	Minneapols MN
	Hebron KY	Plainfield IN	Sterling VA	Chandler AZ	Jackson MS	Concord NC
	Louisville KY	Whitestown IN	Indianapolis IN	Peabody MA	Lawrenceburg , IN	Clearfield UT
	Cayce SC	Chattanooga TN	Sumner WA	Katy TX	Ankorage AK	Saint Louis MO
	Charleston TN	Lebanon TN		Hialeah FL	Alamogordo NM	